

**From:** [Jen Mott](#)  
**To:** [Dana Bayuk](#)  
**Cc:** [Bob Wyatt](#); [Patty Dost](#); [Ben Hung](#); [John Edwards](#); [Pradeep Mugunthan](#); [Mike Riley](#); [Ben Johnson](#); [Matt Wilson](#); [Rob Ede](#); [Sheldrake, Sean](#); [Lance Peterson \(petersonle@cdmsmith.com\)](#); [Scott Coffey](#); [LARSEN Henning](#); [John Renda](#); [Jen Mott](#); [Rana Uhl](#); [Katie Atkins](#); [James Peale](#); [Kelly Titkemeier \(kittkemeier@maulfoster.com\)](#); [Madi Novak](#); [Mary Benzinger \(mbenzinger@maulfoster.com\)](#); ["Mike Murray"](#); [Myron Burr \(myron.burr@siltronic.com\)](#); [Ilene Munk Gaekwad \(imunk@foleymansfield.com\)](#)  
**Subject:** RE: NW Natural, November 2015 through February 2016 H&C System Hydraulic Data - Evaluation of Transducer Drift and Calibration Data Report  
**Date:** Friday, August 05, 2016 7:05:49 AM  
**Attachments:** [Gasco Calibration Data Report 2016-08-05.pdf](#)

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Dana,

The attached report, Evaluation of Transducer Drift and Calibration Data, was prepared in response to your June 3, 2016 email request for NW Natural to further evaluate the potential for transducer drift to influence data collection and use.

Please contact John Edwards with any questions or to discuss the report.

Thank you,  
Jen Mott ☺  
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-----Original Message-----

From: BAYUK Dana [<mailto:BAYUK.Dana@deq.state.or.us>]  
Sent: Friday, June 03, 2016 4:34 PM  
To: John Renda <[jrenda@anchorqea.com](mailto:jrenda@anchorqea.com)>  
Cc: Bob Wyatt <[rjw@nwnatural.com](mailto:rjw@nwnatural.com)>; Patty Dost <[pdost@pearllegalgroup.com](mailto:pdost@pearllegalgroup.com)>; Ben Hung <[bhung@anchorqea.com](mailto:bhung@anchorqea.com)>; John Edwards <[jedwards@anchorqea.com](mailto:jedwards@anchorqea.com)>; Pradeep Mugunthan <[pmugunthan@anchorqea.com](mailto:pmugunthan@anchorqea.com)>; Mike Riley <[mriley@anchorqea.com](mailto:mriley@anchorqea.com)>; Jen Mott <[jmott@anchorqea.com](mailto:jmott@anchorqea.com)>; Ben Johnson <[bjohnson@anchorqea.com](mailto:bjohnson@anchorqea.com)>; Matt Wilson <[mwilson@anchorqea.com](mailto:mwilson@anchorqea.com)>; Rob Ede <[robe@hahnenv.com](mailto:robe@hahnenv.com)>; Myron Burr (Myron.Burr@siltronic.com) <[Myron.Burr@siltronic.com](mailto:Myron.Burr@siltronic.com)>; Ilene M. Munk ([imunk@foleymansfield.com](mailto:imunk@foleymansfield.com)) <[imunk@foleymansfield.com](mailto:imunk@foleymansfield.com)>; Madi Novak ([mnovak@maulfoster.com](mailto:mnovak@maulfoster.com)) <[mnovak@maulfoster.com](mailto:mnovak@maulfoster.com)>; James Peale ([jpeale@maulfoster.com](mailto:jpeale@maulfoster.com)) <[jpeale@maulfoster.com](mailto:jpeale@maulfoster.com)>; Mike Murray <[mmurray@maulfoster.com](mailto:mmurray@maulfoster.com)>; Sean Sheldrake <[sheldrake.sean@epa.gov](mailto:sheldrake.sean@epa.gov)>; Lance Peterson ([petersonle@cdmsmith.com](mailto:petersonle@cdmsmith.com)) <[petersonle@cdmsmith.com](mailto:petersonle@cdmsmith.com)>; Scott Coffey <[coffeyse@cdmsmith.com](mailto:coffeyse@cdmsmith.com)> <[CoffeySE@cdmsmith.com](mailto:CoffeySE@cdmsmith.com)>; LARSEN Henning <[LARSEN.Henning@deq.state.or.us](mailto:LARSEN.Henning@deq.state.or.us)>  
Subject: NW Natural, November 2015 through February 2016 H&C System Hydraulic Data

Good afternoon John.

DEQ reviewed the HC&C system hydraulic data packages for the months of November 2015 through February 2016. Anchor QEA, LLC prepared the four monthly data packages for NW Natural and made the data available

for DEQ and EPA to download from Anchor's FTP site, or transmitted the data via e-mail.

This e-mail provides our comments on the hydraulic data packages, and acknowledges that the compilation, presentation, and reporting of these data packages were completed consistent with the schedule DEQ approved by e-mail on October 6, 2015. Besides DEQ, EPA reviewed the HC&C system hydraulic data packages. EPA's comments have been incorporated into the attachment.

For clarification, the comments provided in this e-mail supplement DEQ and EPA comments e-mailed on February 25, 2016. Besides providing DEQ/EPA observations on HC&C system performance, the February 25th comments identified the need for NW Natural to further evaluate the potential for transducer drift to influence data collection and use. NW Natural, Siltronic, EPA, and DEQ discussed transducer drift during a conference call on April 28, 2016. DEQ currently understands that NW Natural is developing a technical approach for further analyzing the potential for transducer drift to influence hydraulic data presentations and interpretations, as well as NW Natural's conclusions regarding HC&C system performance.

Except as indicated in the attachment, DEQ is not requesting NW Natural to provide written responses to the comments. The comments provide our observations regarding hydraulic data and data trends, and are for NW Natural's information, consideration, and use in monitoring the performance and operation of the HC&C system, and for future reporting.

DEQ acknowledges and appreciates NW Natural monthly compilation and preparation of the HC&C system hydraulic data packages.

Hope you have a good weekend and please feel free to contact me with questions regarding this e-mail.

Dana

Mr. Dana Bayuk

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